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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/774,523	01/31/2001	Michael Slater	07844-528001/B008	4464

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EXAMINER

SANTOS, PATRICK J D

ART UNIT	PAPER NUMBER
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2171

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/774,523

Applicant(s)

SLATER ET AL.

Examiner

Patrick J Santos

Art Unit

2171

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because: the length exceeds 150 words.

Correction is required. See MPEP § 608.01(b).

2. The use of the various trademarks (including but not limited to: marked products such as Memory Stick (TM) and company names such as Zing (TM), FotoNation (TM), Panasonic (TM), Sony (TM), Casio (TM) – see Specification p. 5, lns. 11-13, p. 7, lns. 4-5, 9, and 11, etc.) has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks. Applicant is required to review the specification and to indicate trademarks as appropriate. See MPEP § 608.01(b).

Claim Objections

3. Claims 1-3, 12-14, and 17-20 are objected to because of the following informality: Claim 1 contains the word, “policies” incorrectly spelled as “polices” (Clm. 1, ln. 6). Dependent Claims 2-3, 12-14, and 17-20 inherit aforementioned defect. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-3, 5-6, 12-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 contains the phrase, "fully automated" (Clm. 1: ln. 8) which is indefinite. Since the degree of automation possible in any application varies based on expense as well as what technology is readily available at a given time, what is considered not fully automated to one member of the public, is not necessarily considered fully automated to another member of the public. Dependent Claims 2-3, 12-14, and 17-20 inherit the aforementioned defect.

Claim 5 contains parenthetical statements regarding examples of details that are to be hidden from a user (Clm. 5, lns. 2-7). This information is exemplary rather than a particular pointing out and distinctly claiming, and is therefore indefinite.

Claim 5 further contains the word, "quickly" (Clm. 5, ln. 4) which is indefinite. Since the degree a quickness varies from person to person, the public cannot distinguish an acceptable speed that would not infringe upon the claim.

Claim 6 contains parenthetical statements that contain examples of the types of details that a user is to be "unburdened" from "supervising" (Clm. 8: lns. 9-13). This information is exemplary rather than a particular pointing out and distinctly claiming, and is therefore indefinite.

Claim 15 contains the parenthetical statement "(e.g. HTML)" (Clm. 15, ln. 11). Since a member of the public could not ascertain whether the parenthetical statement is a limitation or

not, the parenthetical statement is indefinite. Further, the “e.g.” indicates exemplar language which is indefinite. See MPEP § 2173.05(d). Dependent Claim 16 inherits the aforementioned defect.

Claim 13 contains a reference to an “image archive” (Clm. 13, lns. 23-24), which lacks antecedent basis either in Claim 13 or parent Claim 1. Thus the term “image archive” is indefinite.

Claim 17 contains the parenthetical statement “archive” (Clm. 17, ln. 7). Since a member of the public could not ascertain whether the parenthetical statement is a limitation or not, the parenthetical statement is indefinite.

Claim 18 contains the term, “at least some” (Clm. 18, ln. 18). Since a member of the public could not ascertain a definite minimum constituting “some,” for example whether or not “one” constitutes “some,” the parenthetical statement is indefinite.

Claims 17-19 contains a references to “images” (Clm. 17, lns. 9, 11, and 12), “requests for image processing services” (Clm. 18, lns. 18-19), and “image” (Clm. 19, ln. 22). Since Claims 17-19, and parent Claim 1 have not established that the claimed system applies to images as opposed to files in general, these references to images and image requests lack antecedent basis and is therefore indefinite.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claim 6 is rejected under 35 U.S.C. 102(a) as being anticipated by the Simple Service Discovery Protocol IETF draft V.1.0 dated October 28, 1999 (hereafter IETF '99).

Claim 6:

Regarding Claim 6, IETF '99 discloses the Simple Service Discovery Protocol, the well known service discovery protocol that automates communications in Universal Plug and Play (UPnP) (TM) as well as other applications. Specifically, IETF '99 discloses: a method of requesting services that unburdens the user from supervising the submission of the request for services (including hiding the latencies of establishing a connection, account login, and slow modem transfer speeds, and hiding the processes of enabling, supervising, and terminating the transfer) (IETF '99: Sections 2.1 and 2.2.1).

8. Claims 7-9 are rejected under 35 U.S.C. 102(a) as being anticipated by the publication, "Universal Plug and Play (TM) Connects Smart Devices" by Christensson et al. as presented at the Windows (TM) Hardware Engineering Conference 1999, and archived by the Wayback Machine (TM) on October 23, 1999 at <http://www.upnp.org> (hereafter Christensson '99).

Claim 7:

Regarding Claim 7, Christensson '99 discloses: a method of communicating images from a user-camera to a user-controlled archive using an intermediate storage device, wherein the user-camera-to-intermediate device operation is decoupled from and is generally asynchronous with the intermediate-device-to-archive operation, the latter occurring automatically after a variable delay following the former (Christensson '99: p. 5, section titled, "Lightweight Cost-

Art Unit: 2171

Effective Technology”; p. 13, “Product Implementation Example – Axis Camera (TM)”, note that the Axis Camera (TM) is a standalone device, all pictures stay local to the camera until uploaded to a server, and further note that use of UPnP (TM) reads on asynchronous communication).

Claims 8-9:

Regarding Claims 8-9, Christensson '99 discloses all the limitations of Claim 7 (supra).

Additionally, Christensson '99 discloses:

- (Claim 8) the archive is remotely accessed via a network (Christensson '99: pp. 3-4, section titled, “Universal Plug and Play (TM) Applications” – note discussion of access of devices over the Internet);
- (Claim 9) the network is the Internet (Christensson '99: pp. 3-4, section titled, “Universal Plug and Play (TM) Applications” – note discussion of access of devices over the Internet).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-2, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,644,766 issued to Coy et al. (hereafter Coy '766), in view of IETF '99, and in

Art Unit: 2171

further view of U.S. Patent No. 6,415,017 issued to Dievendorff et al. (hereafter Dievendorff '017).

Claim 1:

Regarding Claim 1, Coy '766 discloses a policy driven, asynchronous, data migration service. Specifically, Coy '766 discloses: a method of operating a server to provide immediate and deferred response services to remote clients (Coy '766: col. 3, lns. 40-62; additionally see col. 1, lns. 21-28), the method including:

- providing dedicated server-side storage areas for client archives (Coy '766: col. 4, lns. 37-49; col. 3, lns. 40-58);
- implementing database management policies, said policies being configurable to each client archive; (Coy '766: col. 4, lns. 50-56);
- implementing communications with the client for data synchronization and client request submission (Coy 722: col. 4, ln. 67 to col. 5, ln. 7);
- during communications, executing downloads based on data synchronization needs, any outstanding responses from requests received previously, and any immediately serviceable responses from current requests (Coy '766: col. 3, lns. 45-51; col. 12, lns. 7-18 – note that co-location services read on synchronization); and
- following the receipt of client uploads, selectively performing server-side processing based on the client archive specific database management policy and any client requests requiring responses (Coy '766: col. 12, lns. 19-29).

However, Coy '766 does not explicitly disclose:

- implementing fully automated communications; or

- queuing deferred requests.

IETF '99 discloses the Simple Service Discovery Protocol, the well known service discovery protocol that automates communications in Universal Plug and Play (UPnP) (TM) as well as other applications. Specifically, IETF '99 discloses: implementing fully automated communications with the client for data synchronization and client request submission (IETF '99: Section 2.3.1.3 – note in particular service notifications are present in SSDP). However, IETF '99 does not disclose queuing deferred requests.

Dievendorff '017 discloses MSMQ (TM), Microsoft Corporation's (TM) well known object queuing architecture. Specifically, Dievendorff '017 discloses: queuing deferred requests (Dievendorff '017: col. 4, ln. 66 to col. 5, ln. 32 – note that asynchronous communications reads on deferral).

It would have been obvious to a person having ordinary skill in the art to apply the SSDP protocol of IETF '99 to the Coy '766 policy driven archival apparatus. The motivation to combine is suggested by IETF '99 which discloses that use of SSDP to a network apparatus, such as that of Coy '766, adds the advantage of providing service discovery capabilities without requiring configuration, management, or administration by the user (IETF '99: Sections 2.1 and 2.2.1). Further note, the services provided by Coy '766 are synchronization on client request submissions (Coy '766: col. 3, lns. 45-51; col. 12, lns. 7-18), thus these services are discoverable via SSDP in a Coy '766 and IETF '99 combination.

It would have been further obvious to a person having ordinary skill in the art to apply the object queuing system of Dievendorff '017 to the Coy '766 and IETF '99 combination. The motivation to combine is suggested by Dievendorff '017 which discloses that use of the object

Art Unit: 2171

queuing system of Dievendorff '017 provides the advantage of allowing asynchronous object operations, such as that of the Coy '766 and IETF '99 combination without requiring special messaging APIs, thus simplifying implementation (Dievendorff '017: col. 4, ln. 66 to col. 5, ln. 5). Note that in the Coy '766 and IETF '99 combination, SSDP provides for a device to intermittently participate on a network, thus causing the requirement for asynchronous object operations.

Claims 2 and 18:

Regarding Claims 2 and 18, Coy '766, IETF '99, and Dievendorff '017 in combination disclose all the limitations of Claim 1 (supra). Coy '766 additionally discloses:

- (Claim 2) the services are explicitly customer-account based (Coy '766: col. 3, lns. 59-62).
- (Claim 18) at least some of the client requests for image processing services are executed directly by the server (Coy '766: col. 12, ln. 63 to col. 13, ln. 3).

11. Claims 3-4, 12, 17, 19, 23, 27, and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coy '766, IETF '99, and Dievendorff '017, in view of U.S. Patent No. 5,706, 457 issued to Dwyer et al. (hereafter Dwyer '457).

Claims 3, 12, 17, and 19:

Regarding Claims 3, 12, 17, and 19, Coy '766, IETF '99, and Dievendorff '017 in combination disclose all the limitations of Claim 1 (supra). Coy '766, IETF '99, and Dievendorff '017 in combination additionally disclose:

- (Claim 3) the database management policies include file management policies and the file management polices include methods of file synchronization (Coy '766: col. 3, lns. 45-51; col. 12, lns. 7-18);
- (Claim 17) the database management policy (Coy '766: col. 4, lns. 50-56) acts to:
 - a) attempt to keep the client-side storage as a strict subset of the server-side (archive) storage (Coy '766: col. 4, ln. 57 to col. 5, ln. 7);
 - b) discard the oldest created images in the client-side storage, as required to accommodate new images (Coy '766: col. 4, lns 23-36; col. 4, lns. 58-61 – note that oldest file determination is a function of time stamping);
 - c) discard the least recently accessed images in the client-side storage, as required to accommodate new images (Coy '766: col. 4, lns 23-36; col. 4, lns. 58-61 – note that a least recently used determination is a function of time stamping);
 - d) lock user selected files in the client-side storage (Coy '766: col. 6, lns. 19-22; col. 6, lns. 40-43 – note that the file systems disclosed by Coy '766 all support file locking);
 - e) provide restoration of the contents of the client-side storage in the event of a loss (Coy '766: col. 6, ln. 61 to col. 7, ln. 29 – note that Coy '766 discloses a file backup system).

However, Coy '766, IETF '99, and Dievendorff '017 in combination do not explicitly disclose that the files to be managed are images.

Dwyer '457 discloses an image archival invention. Specifically, Dwyer '457 discloses:

- (Claim 3) that the files to be managed are images (Dwyer '457: col. 1, lns. 38-53);

- (Claim 12) the server acts in response to client requests as a single consolidated storage destination for multiple image sources other than the client, including:
 - a) scanned images from new film developing;
 - b) scanned images from conversion of existing prints;
 - c) digital images provided by others via the internet; and
 - d) image library services accessible via the internet (Dwyer '457: col. 1, lns. 39-53; col. 1, ln. 65 to col. 2, ln. 4; col. 2, lns. 56-65);
- (Claim 17) that the files to be locked are images (Dwyer '457: col. 1, lns. 39-42) and maintain screen resolution copies in the client-side storage and printer resolution copies in the server-side storage (Dwyer '457: col. 1, lns. 38-53; col. 1, ln. 65 to col. 2, ln. 4);
- (Claim 19) the server communicates at least one image in the archive to a specialty organization for request execution (Dwyer '457: col. 2, lns. 56-65).

It would have been obvious to a person having ordinary skill in the art to substitute the generic files under management of the Coy '766, IETF '99, and Dievendorff '017 combination to with the image files and management of Dwyer '457. The motivation to combine is suggested by Dwyer '457 which discloses that applying the image file management of Dwyer the Coy '766, IETF '99, and Dievendorff '017 combination provides the advantage of allowing for image specific operations (Dwyer '457: col. 2, ln. 66 to col. 3, ln. 19).

Claim 4:

Regarding Claim 4, Coy '766 discloses a policy driven, asynchronous, data migration service. Specifically, Coy '766 discloses: a method of operating a client device and an archive server (Coy '766: Abstract), the method including:

- performing communications from the client to the archive server for file sync and request submission (Coy '766: col. 3, lns. 45-51; col. 12, lns. 7-18 – note that co-location services read on synchronization);
- performing client operations including:
 - o requests include requests to reconfigure file management policies of the server/client combination (Coy '766: col. 6, lns. 19-22; col. 6, lns. 40-43 – note that the file systems disclosed by Coy '766 all support configuration of file management policies).

However, Coy '766 does not explicitly disclose:

- communications are intermittent and automated;
- intervals of client operation without communications with the server
- performing client operations including:
 - performing selective display of locally held images;
 - buffering images and requests received locally since previously having communications with the archive server; and
 - indefinitely deferring communications of the buffered images and requests.
- files are image files.

IETF '99 discloses the Simple Service Discovery Protocol, the well known service discovery protocol that automates communications in Universal Plug and Play (UpnP) (TM) as well as other applications. Specifically, IETF '99 discloses:

- communications are intermittent and automated (IETF '99: Sections 2.1, and 2.2.1 - note that a service/device may register within a network, remove itself, and then register, all without user interaction. This reads on intermittent and automated communications.);
- intervals of client operation without communications with the server (IETF '99: Sections 2.1, and 2.2.1 - note that a service/device may register within a network, remove itself, and then register, all without user interaction. This reads on intervals of client operation without communications with the server.);

However, IETF '99 does not explicitly disclose:

- performing client operations including:
 - performing selective display of locally held images;
 - buffering images and requests received locally since previously having communications with the archive server; and
 - indefinitely deferring communications of the buffered images and requests.
- files are image files.

Dievendorff '017 discloses MSMQ (TM), Microsoft Corporation's (TM) well known object queuing architecture. Specifically, Dievendorff '017 discloses:

- performing client operations including:

Art Unit: 2171

- buffering files and requests received locally since previously having communications with the archive server (Dievendorff '017: col. 4, ln. 66 to col. 5, ln. 32 – note that queuing reads on buffering files and requests); and
- indefinitely deferring communications of the buffered file and requests (Dievendorff '017: col. 4, ln. 66 to col. 5, ln. 32 – note that asynchronous communications reads on deferral).

However, Dievendorff '017 does not explicitly disclose:

- performing client operations including:
 - performing selective display of locally held images;
- files are image files.

Dwyer '457 discloses an image archival invention. Specifically, Dwyer '457 discloses:

- performing client operations including:
 - performing selective display of locally held images;
- files are image files (Dwyer '457: col. 1, lns. 39-42).

It would have been obvious to a person having ordinary skill in the art to apply the SSDP protocol of IETF '99 to the Coy '766 policy driven archival apparatus. The motivation to combine is on the same basis as Claim 1 (supra).

It would have been further obvious to a person having ordinary skill in the art to apply the object queuing system of Dievendorff '017 to the Coy '766 and IETF '99 combination. The motivation to combine is on the same basis as Claim 1 (supra).

It would have been moreover obvious to a person having ordinary skill in the art to substitute the generic files under management of the Coy '766, IETF '99, and Dievendorff '017

combination to with the image files and management of Dwyer '457. The motivation to combine is on the same basis as Claim 3 (supra).

Claims 23, 27, and 30-31:

Regarding Claims 23, 27, and 30-31, Coy '766, IETF '99, Dievendorff '017, and Dwyer '457 in combination disclose all the limitations of Claim 4 (supra). Additionally, Coy '766, IETF '99, Dievendorff '017, and Dwyer '457 in combination disclose:

- (Claim 23) the general appearance of the user interface is determined by page descriptions stored in non-volatile memory in the client that are modified as required by dynamic data conditions in the client and the most recent downloads from the server (Coy '766: col. 6, ln. 61 to col. 7, ln. 28 – note that Coy '766 provides the capability of displayed data based on time conditions);
- (Claim 27) the client device acts as a posted-write buffer to receive the locally received images and let the source of the images be put back to use before the images reach their ultimate destination (Dievendorff '017: col. 22, lns. 40-52);
- (Claim 30) the client device receives the locally received images via an I/O connector (IETF '99: Sections 5.1 and 5.2.1 – note that the SSDP device is participating on a network which means that an I/O connector is required);
- (Claim 31) the images are loaded automatically as soon as the I/O connection is sensed as being active (IETF '99: Sections 5.1 and 5.2.1 – note support of GENA notification upon participation of the device on the network i.e. as soon as the I/O connection is sensed as being active).

12. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coy '766, in view of U.S. Patent No. 5,557,747 issued to Rogers et al. (hereafter Rogers '747), in further view of IETF '99, in further view of U.S. Patent No. 6,148,354 issued to Ban et al. (hereafter Ban '354), and in further view of Dievendorff '017.

Claim 5:

Regarding Claim 5, Coy '766 discloses: a method for the process of archiving binary files to a remote server (Coy '766: Abstract) by transferring files (Coy '766: col. 3, ln. 63 to col. 4, ln. 8; col. 4, lns. 23-56). Additionally, Coy '766 discloses the use of policies (Coy '766: col. 4, lns. 50-56). However, Coy '766 does not explicitly disclose:

- the policies are user specified;
- hiding the method from the user (including hiding the latencies of establishing a connection, account login, and slow modem transfer speeds, and including hiding the processes of enabling, supervising, and terminating the transfer);
- by quickly automatically transferring files from removable media indefinitely holding the files in a buffer; and
- automatically transferring the data to a remote server in accordance with a predefined user profile.

Rogers '747 discloses user specified policies. Specifically, Rogers '747 discloses: automatically transferring the data to a remote server in accordance with a predefined user profile (Rogers '747: col. 2, lns. 24-49; col. 18, lns. 43-49). However, Rogers '747 does not explicitly disclose:

- hiding the method from the user (including hiding the latencies of establishing a connection, account login, and slow modem transfer speeds, and including hiding the processes of enabling, supervising, and terminating the transfer);
- by quickly automatically transferring files from removable media indefinitely holding the files in a buffer.

IETF '99 discloses hiding the method from the user (including the hiding the latencies of establishing a connection, account login, and slow modem transfer speeds, and including hiding the processes of enabling, supervising, and terminating the transfer) (IETF '99: Sections 2.1 and 2.2.1). However, IETF '99 does not explicitly disclose:

- by quickly automatically transferring files from removable media indefinitely holding the files in a buffer.

Ban '354 discloses: by quickly automatically transferring files from removable media (Ban '354: col. 4, ln. 59 to col. 5, ln. 19; col. 6, lns. 28-40 – note that by virtue of being accessible via the USB port, upon connection, a notification occurs). However, Ban '354 does not disclose: indefinitely holding the files in a buffer.

Dievendorff '017 discloses: indefinitely holding the files in a buffer (Dievendorff '017: col. 4, ln. 66 to col. 5, ln. 32 – note a queue reads on a buffer that can hold files indefinitely).

It would have been obvious to a person having ordinary skill in the art to substitute the policies of Coy '766 with the user specified policies of Rogers '747. The motivation to combine is suggested by Rogers '747 which discloses: use of the policy system of Rogers '747 provides the advantages automating implementation of policies without overhead of changing policies and monitoring network state (Rogers '747: col. 1, ln. 58 to col. 2, ln. 5).

It would have been further obvious to a person having ordinary skill in the art to apply the SSDP protocol of IETF '99 to the Coy '766 and Rogers '747 combination. The motivation to combine is suggested by IETF '99 which discloses that use of SSDP to a network apparatus, such as that of the Coy '766 and Rogers '747 combination, adds the advantage of providing service discovery capabilities without requiring configuration, management, or administration by the user (IETF '99: Sections 2.1 and 2.2.1). Further note, the services provided by Coy '766 and Rogers '747 combination are synchronization on client request submissions (Coy '766: col. 3, lns. 45-51; col. 12, lns. 7-18), thus these services are discoverable via SSDP in a Coy '766, Rogers '747, and IETF '99 combination.

It would have been further obvious to a person having ordinary skill in the art to apply the removable media of Ban '354 to the Coy '766, Rogers '747, and IETF '99 combination. The motivation to combine is suggested by Ban '354 which discloses that the Ban '354 invention provides a persistent store such as that in the Coy '766, Rogers '747, and IETF '99 combination while that includes the benefits of removable media (Ban '354: col. 1, ln. 54 to col. 2, ln. 3).

It would have been further obvious to a person having ordinary skill in the art to apply the queue of Dievendorff '017 to the Coy '766, Rogers '747, IETF '99, and Ban '354 combination. The motivation to combine is suggested by Dievendorff '017 which discloses that use of the object queuing system of Dievendorff '017 provides the advantage of allowing asynchronous object operations, such as that of the Coy '766, Rogers '747, IETF '99, and Ban '354 combination without requiring special messaging APIs, thus simplifying implementation (Dievendorff '017: col. 4, ln. 66 to col. 5, ln. 5). Note that in the Coy '766, Rogers '747, IETF

'99, and Ban '354 combination, SSDP provides for a device to intermittently participate on a network, thus causing the requirement for asynchronous object operations.

13. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coy '766 in view of Dievendorff '017 in further view of Dwyer 457.

Claim 10:

Regarding Claim 10, Coy '766 discloses: a method of automatic processing of remote services associated with digital files (Coy '766: Abstract), the method including:

- a) accepting a user request on a client platform (Coy '766: col. 5, lns. 5-7);
- b) waiting a dynamically determined interval until a predetermined set of criteria are satisfied; and communication of the request and the associated digital photos from the client to a server (Coy '766: col. 4, lns. 57-67 – note the a determination of whether to move a file or not based on a last modification time (as per Coy '766) reads on dynamically determined interval).

However, Coy '766 does not explicitly disclose:

- the user request is buffered;
- routing the request to a service provider, execution of the request, return routing of the result/response, and receipt of the result/response by the client; or
- the digital files are digital photos.

Dievendorff '017 discloses:

- the user request is buffered (Dievendorff '017: col. 4, ln. 66 to col. 5, ln. 32 – note that queue requests reads on buffering);

Art Unit: 2171

- routing the request to a service provider, execution of the request, return routing of the result/response, and receipt of the result/response by the client (Dievendorff '017: col. 4, ln. 66 to col. 5, ln. 32 – once the conditions to dequeue are met, a request is processed, which in this case includes this limitation).

However, Dievendorff '017 does not explicitly disclose:

- the digital files are digital photos.

Dwyer '457 discloses:

- the digital files are digital photos (Dwyer '457: col. 1, lns. 38-53).

It would have been obvious to a person having ordinary skill in the art to apply the object queuing system of Dievendorff '017 to the Coy '766 invention. The motivation to combine is suggested by Dievendorff '017 which discloses that use of the object queuing system of Dievendorff '017 provides the advantage of allowing asynchronous object operations, such as that of Coy '766 without requiring special messaging APIs, thus simplifying implementation (Dievendorff '017: col. 4, ln. 66 to col. 5, ln. 5).

It would have been further obvious to a person having ordinary skill in the art to substitute the files under management of the Coy '766 and Dievendorff '017 combination with the image files of Dwyer '457. The motivation to combine is suggested by Dwyer '457 which discloses that applying the image file management of Dwyer the Coy '766 and Dievendorff '017 combination provides the advantage of allowing for image specific operations (Dwyer '457: col. 2, ln. 66 to col. 3, ln. 19).

Claim 11:

Regarding Claim 11, Coy '766, Dievendorff '017, and Dwyer '457 in combination disclose all the limitations of Claim 10 (supra). Additionally, Coy '766, Dievendorff '017, and Dwyer '457 in combination disclose: the predetermined set of criteria includes that a request is pending and the current time is within a previously programmed time window (Coy '766: col. 4, lns. 57-67 – note the a determination of whether to move a file or not based on a last modification time (as per Coy '766) reads on a time window).

14. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coy '766, IETF '99, and Dievendorff '017 in view of the web page www.upnp.org titled "Universal Plug and Play (TM) Background," as archived by the Wayback Machine (TM) on October 23, 1999, (hereafter UPnP '99).

Claim 13:

Regarding Claim 13, Coy '766, IETF '99, and Dievendorff '017 in combination disclose all the limitations of Claim 1 (supra). However, Coy '766, IETF '99, and Dievendorff '017 in combination do not explicitly disclose: communications to the client image archive are additionally available via real-time web-browser access.

UPnP '99 discloses Universal Plug and Play (UPnP) (TM), a well known protocol to support ad hoc networking. Specifically, UPnP '99 discloses: communications to the client image archive are additionally available via real-time web-browser access (UPnP '99: page 3 of 7, section titled, "Take Advantage of the Web" which describes UPnP (TM) devices supporting web pages).

It would have been obvious to a person having ordinary skill in the art to combine the UPnP (TM) access via browser with the Coy '766, IETF '99, and Dievendorff '017 combination. The motivation to combine is suggested by UPnP '99 which explicitly teaches the combination of UPnP (TM) with the SSDP protocol of IETF '99 in the Coy '766, IETF '99, and Dievendorff '017 combination (UPnP '99: page 4 of 7, Section titled, "Peer Discovery Mechanism").

15. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coy '766, IETF '99, and Dievendorff '017 in view of UPnP '99 and in further view of Dwyer '457.

Claim 14:

Regarding Claim 14, Coy '766, IETF '99, and Dievendorff '017 in combination disclose all the limitations of Claim 1 (supra). Additionally, Coy '766, IETF '99, and Dievendorff '017 in combination disclose: support of that communications that require immediate responses and other communications using unattended access via client devices that permit deferred responses (Dievendorff '017: col. 4, ln. 66 to col. 5, ln. 32 – note that the synchronicity of communications is abstracted out, thus both immediate and deferred responses are supported). However, Coy '766, IETF '99, and Dievendorff '017 in combination do not explicitly disclose:

- some customers using attended access via browsers; and
- the server supports simultaneous access by multiple customers to respective image archives.

UPnP '99 discloses: some customers using attended access via browsers (UPnP '99: page 3 of 7, section titled, "Take Advantage of the Web" which describes UPnP (TM) devices supporting web pages).

Dwyer '457 discloses an image archival invention. Specifically, Dwyer '457 discloses:

- the server supports simultaneous access by multiple customers to respective image archives (Dwyer '457: col. 1, lns. 39-53)

It would have been obvious to a person having ordinary skill in the art to combine the UPnP (TM) access via browser with the Coy '766, IETF '99, and Dievendorff '017 combination. The motivation to combine is on the same basis as Claim 13 (supra).

It would have been further obvious to a person having ordinary skill in the art to combine the image server of Dwyer '457 with the Coy '766, IETF '99, Dievendorff '017, and UPnP '99 combination. The motivation to combine is on the same basis as Claim 3 (supra).

16. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coy '766 in view of IETF '99 in further view of UPnP '99.

Claim 15:

Regarding Claim 15, Coy '766 discloses: a method of operating a server (Coy '766: Abstract), the method comprising:

- reserving dedicated server-side image storage areas corresponding to each of a plurality of client devices having client-side image storage areas, each dedicated server-side image storage area including at least one image storage area reserved for long-term image storage (Coy '766: col. 3, lns. 40-62; col. 5, ln. 59 to col. 6, ln. 5);
- maintaining client-associated data, including storage management policy data (Coy '766: col. 4, lns. 48-56);

- during communications, uploading image data selectively provided by the client device (Coy '766: col. 3, ln. 63 to col. 4, ln. 36);
- during the user-unattended communications, uploading request data selectively provided by the client device (Coy '766: col. 3, ln. 63 to col. 4, ln. 36);
- during the user-unattended communications, selectively downloading images to the client device as a function of the client-associated data and the selectively uploaded client request data (Coy '766: col. 3, ln. 63 to col. 4, ln. 36); and
- subsequent to an instance of the user-unattended communications during which data is uploaded, selectively processing the uploaded data as a function of the client-associated data and the selectively uploaded client request data (Coy '766: col. 3, ln. 63 to col. 4, ln. 36).

However, Coy '766 does not explicitly disclose:

- Client devices are intermittently-connected;
- Communications are the user-unattended;
- performing automated user-unattended communications with the client device that have no requirement for the downloading of real-time userinterface related data (e.g. HTML).

IETF '99 discloses:

- Client devices are intermittently-connected (IETF '99: Sections 2.1 and 2.2.1);
- Communications are the user-unattended (IETF '99: Sections 2.1 and 2.2.1);

However, IETF '99 does not explicitly disclose:

- performing automated user-unattended communications with the client device that have no requirement for the downloading of real-time userinterface related data (e.g. HTML).

UPnP '99 discloses:

- performing automated user-unattended communications with the client device that have no requirement for the downloading of real-time userinterface related data (e.g. HTML) (UPnP '99: page 3 of 7, section titled, "Take Advantage of the Web" which describes UPnP (TM) devices supporting web pages).

It would have been obvious to a person having ordinary skill in the art to apply the SSDP protocol of IETF '99 to the Coy '766 policy driven archival apparatus. The motivation to combine is suggested by IETF '99 which discloses that use of SSDP to a network apparatus, such as that of Coy '766, adds the advantage of providing service discovery capabilities without requiring configuration, management, or administration by the user (IETF '99: Sections 2.1 and 2.2.1). Further note, the services provided by Coy '766 are synchronization on client request submissions (Coy '766: col. 3, lns. 45-51; col. 12, lns. 7-18), thus these services are discoverable via SSDP in a Coy '766 and IETF '99 combination.

It would have been further obvious to a person having ordinary skill in the art to apply the UPnP (TM) protocol of UPnP '99 to the Coy '766 and IETF '99 combination. The motivation to combine is suggested by UPnP '99 which explicitly teaches the combination of UPnP (TM) with the SSDP protocol of IETF '99 in the Coy '766 and IETF '99 combination (UPnP '99: page 4 of 7, Section titled, "Peer Discovery Mechanism").

17. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coy '766, IETF '99, and UPnP '99, in view of U.S. Patent No. 6,017,157 issued to Garfinkle et al. (hereafter Garfinkle '157).

Claim 16:

Regarding Claim 16, Coy '766, IETF '99, and UPnP '99 in combination disclose all the limitations of Claim 15 (supra). Additionally, Coy '766, IETF '99, and UPnP '99 in combination disclose the clients are associated with customer accounts (Coy '766: col. 3, lns. 59-62). However, Coy '766, IETF '99, and UPnP '99 in combination do not explicitly disclose: the client activities result in account billing.

Garfinkle '157 discloses a means to sell digital photo printing services online. Specifically, Sparks '382 discloses the client activities result in account billing (Garfinkle '157: col. 9, lns. 14-32).

It would have been obvious to a person having ordinary skill in the art to apply the online printing services of Garfinkle '157 to the Coy '766, IETF '99, Dievendorff '017, and Dwyer '457 combination. The motivation to combine is suggested by Garfinkle '157 which discloses the desirability of having the image server of Garfinkle '157 be archived, such as that of the Garfinkle '157 to the Coy '766, IETF '99, Dievendorff '017, and Dwyer '457 combination (Garfinkle '157: col. 4, lns. 48-54). Additionally, note that the process described by Garfinkle '157 is inherently asynchronous, in that the design allows for interrupted processing without causing failure (Garfinkle '157: col. 4, lns. 34-43) which further suggests that an archival system that allows for asynchronous communications, such as that of the Coy '766, IETF '99, Dievendorff '017, and Dwyer '457 combination, be used.

18. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coy '766, IETF '99, and Dievendorff '017 in view of U.S. Patent No. 6,017,157 issued to Garfinkle et al. (hereafter Garfinkle '157).

Claim 20:

Regarding Claim 20, Coy '766, IETF '99, and Dievendorff '017 in combination disclose all the limitations of Claim 1 (supra). However, IETF '99, and Dievendorff '017 in combination do not explicitly disclose: the execution of at least some of the requests requires the generation and delivery of physical materials.

Garfinkle '157 discloses a means to sell digital photo printing services online. Specifically, Sparks '382 discloses the execution of at least some of the requests requires the generation and delivery of physical materials (Garfinkle '157: col. 9, lns. 14-32).

It would have been obvious to a person having ordinary skill in the art to apply the online printing services of Garfinkle '157 to the Coy '766, IETF '99, and Dievendorff '017 combination. The motivation to combine is suggested by Garfinkle '157 which discloses the desirability of having the image server of Garfinkle '157 be archived, such as that of the Garfinkle '157 to the Coy '766, IETF '99, and Dievendorff '017 combination (Garfinkle '157: col. 4, lns. 48-54). Additionally, note that the process described by Garfinkle '157 is inherently asynchronous, in that the design allows for interrupted processing without causing failure (Garfinkle '157: col. 4, lns. 34-43) which further suggests that an archival system that allows for asynchronous communications, such as that of the Coy '766, IETF '99, and Dievendorff '017, combination, be used.

19. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coy '766, IETF '99, Dievendorff '017, and Dwyer '457 in view of Christensson '99.

Claims 21-22:

Regarding Claims 21-22, Coy '766, IETF '99, Dievendorff '017, and Dwyer '457 in combination disclose all the limitations of Claim 4 (supra). However, Coy '766, IETF '99, Dievendorff '017, and Dwyer '457 in combination do not explicitly disclose:

- (Claim 21) the client device is completely integrated into a single portable handheld device;
- (Claim 22) the client device has a wireless handheld portion and an associated base-station portion, wherein the display and user interface are in the handheld portion and the base-station has clientside image store and the circuitry to communicate with the server;

Christensson '99 discloses applications of the UPnP (TM) protocol. Specifically, Christensson '99 discloses:

- (Claim 21) the client device is completely integrated into a single portable handheld device (Christensson '99: p. 5, section titled, "Lightweight Cost-Effective Technology"; p. 13, "Product Implementation Example – Axis Camera (TM)", note that the Axis Camera (TM) is a standalone device, all pictures stay local to the camera until uploaded to a server.).
- (Claim 22) the client device has a wireless handheld portion and an associated base-station portion, wherein the display and user interface are in the handheld portion and

the base-station has clientside image store and the circuitry to communicate with the server (Christensson '99: p. 5, section titled, "Lightweight Cost-Effective Technology"; p. 4, section titled, "Ubiquitous Communications" – note discussion of wireless networking.).

It would have been obvious to a person having ordinary skill in the art to combine the UPnP (TM) of Christensson '99 with the Coy '766, IETF '99, Dievendorff '017, and Dwyer '457 combination. The motivation to combine is suggested by Christensson '99 which explicitly teaches combination of the UPnP (TM) with the SSDP protocol of IETF '99 in the Coy '766, IETF '99, Dievendorff '017, and Dwyer '457 combination (Christensson '99: pp. 9-13, Section titled, "Implementation Guidelines", note use of SSDP).

20. Claims 24-26, and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coy '766, IETF '99, Dievendorff '017, and Dwyer '457, in view of Ban '354.

Claims 24 and 28:

Regarding Claim 24 and 28, Coy '766, IETF '99, Dievendorff '017, and Dwyer '457 in combination disclose all the limitations of Claim 4 (supra). However, Coy '766, IETF '99, Dievendorff '017, and Dwyer '457 in combination do not explicitly disclose:

- (Claim 24) the client has a first non-volatile storage area dedicated to photos and a second non-volatile storage area dedicated to the user interface.
- (Claim 28) the client device receives the locally received images via a removable memory.

Ban '354 discloses a flash memory storage device accessible via USB. Specifically, Ban '354 discloses:

- (Claim 24) the client has a first non-volatile storage area dedicated to photos and a second non-volatile storage area dedicated to the user interface (Ban '354: col. 4, ln. 59 to col. 5, ln. 19 – note that by virtue of being accessible via the USB port, the device of Ban '354 is removable, which supports data that is physically transferrable to other devices e.g. photos rather than the application program).
- (Claim 28) the client device receives the locally received images via a removable memory (Ban '354: col. 4, ln. 59 to col. 5, ln. 19 – note that by virtue of being accessible via the USB port, the device of Ban '354 is removable).

It would have been obvious to combine the USB flash memory storage device to the Coy '766, IETF '99, Dievendorff '017, and Dwyer '457 combination. The motivation to combine is suggested by Ban '354 which discloses that the Ban '354 invention provides a persistent store that is particularly suited for multimedia data such as pictures while maintaining the benefits of removable media (Ban '354: col. 1, ln. 54 to col. 2, ln. 3).

Claims 25-26:

Regarding Claims 25-26, Coy '766, IETF '99, Dievendorff '017, Dwyer '457, and Ban '354 in combination disclose all the limitations of Claim 24 (supra). Additionally Coy '766, IETF '99, Dievendorff '017, Dwyer '457, and Ban '354 in combination disclose:

- (Claim 25) the photo storage area is maintained on revolving media (Coy '766: col. 5, lns. 19-30), while the user interface is maintained in flash memory (Ban '354: col. 4, ln. 59 to col. 5, ln. 19 – note Ban '354 discloses the use of flash memory).

Art Unit: 2171

- (Claim 26) the first and second storage areas are maintained in flash memories (Ban '354: col. 4, ln. 59 to col. 5, ln. 19 – note Ban '354 discloses the use of flash memory) having separate write controls (Coy '766: col. 6, lns. 19-22; col. 6, lns. 40-43 – note that the file systems disclosed by Coy '766 all support separate write controls for different file system partitions of memory).

Claim 29:

Regarding Claim 29, Coy '766, IETF '99, Dievendorff '017, Dwyer '457, and Ban '354 in combination disclose all the limitations of Claim 28 (supra). Additionally Coy '766, IETF '99, Dievendorff '017, Dwyer '457, and Ban '354 in combination disclose: the images are loaded automatically as soon as the removable memory is inserted (IETF '99: Sections 5.1 and 5.2.1 – note support of GENA notification upon participation of the device on the network which further supports loading images).

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- U.S. Patent No. 6,185,611 issued to Waldo et al., "Dynamic Lookup Service in a Distributed System." Reference describes the service advertisement and discovery mechanism of the Jini (TM) system from Sun (TM).
- Salutation Consortium Whitepapers - The Salutation Consortium is the Open Source analogue for UPnP (TM), and Jini (TM). Salutation had discovery protocols implemented prior to Microsoft (TM) and Sun (TM). Papers include:

- Pascoe, Bob, "Salutation Architectures and the Newly Defined Service Discovery Protocols from Microsoft (TM) and Sun (TM) – How does the Salutation Architecture Stack Up", June 6, 1999, Salutation Consortium.
- Pascoe, Bob, "Market Trends and Salutation Opportunities Review", 1998, Salutation Consortium.
- Pascoe, Bob, "Geographic Computing, Enabling New Markets for Hand Held and Palm-Size Information Appliances", December 16, 1998, Salutation Consortium.
- Pascoe, Bob, "Salutation Architecture: Enabling Applications and Services", August 16, 1998, Salutation Consortium.
- Pascoe, Bob, "Salutation Information Management Service Structure and Product Component Review", August 19, 1998, Salutation Consortium.
- Cohen, Bob, S. Aggarwal, Y. Y. Goland, "General Event Notification Architecture Base: Client to Arbiter," September 6, 2000, IETF. Basic IETF draft specification for GENA, the notification system in UPnP (TM).
- U.S. Patent No. 5,809,520 issued to Edwards et al., "Interchangeable Cartridge Data Storage System for Devices Performing Diverse Functions." Reference provides an alternative reference for removable memory.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J.D. Santos whose telephone number is 703-305-0707. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick J.D. Santos
May 30, 2004



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